

Friday, September 16, 2016

Cell Tower Health Effects

Federal regulations protect the public only from the thermal (i.e., heating) risk due to short-term exposure to high intensity, cell tower radiation. The Federal regulations ignore the hundreds of studies that find harmful bio-effects from long-term exposure to non-thermal levels of cell phone radiation.

The Telecommunications Act of 1996 does not allow communities to stop the siting of cell towers for health reasons. Nevertheless, landlords may be liable for any harm caused by cell phone radiation emitted by towers situated on their property.

Localities need to organize and change the Federal law to protect public health and wildlife from exposure to microwave radiation emitted by mobile phone base stations.

Following are some resources regarding the health effects of exposure to cell tower radiation. I will occasionally update this page.

Reviews

Bhattacharya, R, Roy, R. Impacts of communication towers on avians: A review. *IJECT*. 4(1): 137-139. 2013. <http://www.iject.org/vol4/spl1/c0046.pdf>

Chronic Exposure Web Site. Research on mobile base stations and their impact on health. <http://www.chronicexposure.org/basestations.html>

Levitt B, Lai H. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. *Environ. Rev.* 18: 369–395 (2010). doi:10.1139/A10-018. <http://www.nrcresearchpress.com/doi/pdfplus/10.1139/A10-018?src=recsys>

Manville, A. A Briefing Memorandum: What We Know, Can Infer, and Don't Yet Know about Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife — for Public Release. July 14, 2016. <http://bit.ly/savewildlifeRFR>

Sivani S, Sudarsanam D. Impacts of radio-frequency electromagnetic field (RF-EMF) from cell phone towers and wireless devices on biosystem and ecosystem--a review. *Biology and Medicine*. 2012. 4(4):202-216. <http://apps.fcc.gov/ecfs/comment/view?id=6017477145>

Yakymenko I, Sidorik E. Risks of carcinogenesis from electromagnetic radiation of mobile telephony devices. *Exp Oncol*. 2010 Jul;32(2):54-60. <http://www.ncbi.nlm.nih.gov/pubmed/20693976>

Yakymenko I, Sidorik E, Kyrylenko S, Chekhun V. Long-term exposure to microwave radiation provokes cancer growth: evidences from radars and mobile communication systems. *Exp Oncol*. 2011 Jun;33(2):62-70. <http://www.ncbi.nlm.nih.gov/pubmed/21716201>

Yakymenko I., Tsybulin O., Sidorik E. Henshel D., Krylenko O., Krylenko S. Oxidative mechanisms of biologic activity of low-intensity radiofrequency radiation. *Electromagnetic Biology and Medicine*. 2015 Jul 7:1-16. <http://www.ncbi.nlm.nih.gov/pubmed/26151230>

Recent Studies

- Al-Quzwini O, Al-Tae H, Al-Shaikh S. Male fertility and its association with occupational and mobile phone towers hazards: An analytic study. Middle East Fertility Society Journal. Avail. online Apr 8, 2016. <http://bit.ly/1SRUWWs>
- Baliatsas C, van Kamp I, Bolte J, Kelfkens G, van Dijk C, Spreeuwenberg P, Hooiveld M, Lebre E, Yzermans J. Clinically defined non-specific symptoms in the vicinity of mobile phone base stations: A retrospective before-after study. Sci Total Environ. 2016 Sep 15;565:714-20. <http://www.ncbi.nlm.nih.gov/pubmed/27219506>
- Bienkowski P, Zubrzak B. Electromagnetic fields from mobile phone base station - variability analysis. Electromagn Biol Med. 2015 Sep;34(3):257-61. <http://1.usa.gov/1TEXygr>
- Black B, Granja-Vazquez R, Johnston BR, Jones E, Romero-Ortega M (2016) Anthropogenic Radio-Frequency Electromagnetic Fields Elicit Neuropathic Pain in an Amputation Model. PLoS ONE 11(1): e0144268. <http://bit.ly/1R7g4vN>
- Cammaerts MC, Johansson O. Effect of man-made electromagnetic fields on common Brassicaceae *Lepidium sativum* (cress d'Alinois) seed germination: a preliminary replication study. *Phyton, International Journal of Experimental Botany* 2015; 84: 132-137. <http://bit.ly/EMRcress>
- Eskander EF, Estefan SF, Abd-Rabou AA. How does long term exposure to base stations and mobile phones affect human hormone profiles? *Clinical Biochemistry*, Volume 45, Issues 1–2. 2012, Pages 157-161. <http://www.ncbi.nlm.nih.gov/pubmed/22138021>
- Gandhi G, Kaur G, Nisar U. A cross-sectional case control study on genetic damage in individuals residing in the vicinity of a mobile phone base station. Electromagn Biol Med. 2014 9:1-11. <http://www.ncbi.nlm.nih.gov/pubmed/25006864>
- Gulati S, Yadav A, Kumar N, Kanupriya, Aggarwal NK, Kumar R, Gupta R. Effect of GSTM1 and GSTT1 Polymorphisms on Genetic Damage in Humans Populations Exposed to Radiation From Mobile Towers. Arch Environ Contam Toxicol. 2015 Aug 5. <http://www.ncbi.nlm.nih.gov/pubmed/26238667>
- Hardell L, Koppel T, Carlberg M, Ahonen M, Hedendahl L. Radiofrequency radiation at Stockholm Central Railway Station in Sweden and some medical aspects on public exposure to RF fields. International Journal of Oncology. Published online Aug 12, 2016. Open access: <http://bit.ly/2aI93Ut>
- Marinescu I, Poparlan C. Assessment of GSM HF-Radiation impact levels within the residential area of Craiova (Romania) city. Procedia Environmental Sciences 32:177-183. 2016. <http://bit.ly/28Q6EEy>
- Meo SA, Alsubaie Y, Almubarak Z, Almutawa H, AlQasem Y, Hasanato RM. Association of Exposure to Radio-Frequency Electromagnetic Field Radiation (RF-EMFR) Generated by Mobile Phone Base Stations with Glycated Hemoglobin (HbA1c) and Risk of Type 2 Diabetes Mellitus. Int J Environ Res Public Health. 2015 Nov 13;12(11):14519-14528. <http://www.mdpi.com/1660-4601/12/11/14519>
- Singh K, Nagaraj A, Yousuf A, Ganta S, Pareek S, Vishnani P. Effect of electromagnetic radiations from mobile phone base stations on general health and salivary function. J Int Soc Prevent Communit Dent 2016;6:54-9. <http://bit.ly/1USYGNs>
- Waldmann-Selsam C, Balmori-de la Puente A, Breunig H, Balmori A. Radiofrequency radiation injures trees around mobile phone base stations. Sci Total Environ. 2016 Aug 20;572:554-569. <http://bit.ly/2cbXNBv>

Resources

Campanelli & Associates, P.C. Cell tower lawyers. <http://www.anticelltowerlawyers.com/>

Center for Municipal Solutions. Excellent resource re: regulation of cell towers & wireless facilities. <http://bit.ly/1GX4mPY>

San Francisco Neighborhood Antenna-Free Union (SNAFU)
<http://www.antennafreeunion.org/neighborhoodaction.htm>

News

RCR Wireless News. Appeals Court rules that California cities have the right to block small cell based on aesthetic concerns. Sep 16, 2016. <http://bit.ly/2cE9GhN>

Rouhan Sharma. A Towering Problem. Infrastructure Today, Feb 2016. <http://bit.ly/1QcHSxO>

Special Correspondent. "Radiation levels of mobile towers should be cut." The Hindu. Feb 7, 2016. <http://bit.ly/1Pt5Sck>

"Stating that the current level of radiation (electromagnetic field, EMF) emitted by mobile phone towers was still high, Girish Kumar, Professor, Department of Electrical Engineering, IIT Bombay, on Saturday, urged the Centre to reduce the radiation level further.

The mobile tower radiation had been reduced [in India] from 45,000 milliwatt per square metre to 450 milliwatt a few years ago. It should be reduced to 10 milliwatt, he said"

Note: The FCC allows the American general public to be exposed to up to 5,800 milliwatts per square meter.

Lydia Beyoud. Not All 'Small Cells' Created Equal, Say Municipalities in Wireless Siting Rules Suit. Bloomberg BNA. Apr 27, 2015.

<http://www.bna.com/not-small-cells-n17179925917/>

"... the number of small cell and DAS installations is expected to grow exponentially in the next few years. As many as 37 million small cell installations could be in place by 2017, and up to 16 million distributed antenna system (DAS) nodes could be deployed by 2018, according to the FCC."

Joel Moskowitz. Press Release: Cell Tower Radiation Affects Wildlife: Dept. of Interior Attacks FCC. Mar 2014.

<http://www.saferemr.com/2014/03/dept-of-interior-attacks-fcc-regarding.html>

Ianthe Jeanne Dugan and Ryan Knutson. Cellphone Boom Spurs Antenna-Safety Worries. *Wall Street Journal*, Oct 2, 2014.

<http://www.wsj.com/articles/cellphone-boom-spurs-antenna-safety-worries-1412293055>

Source: <http://www.saferemr.com/2015/04/cell-tower-health-effects.html>